POLAR CAP BOUNDARY LAYER WAVES: POLAR

B. T. Tsurutani (1), J. K. Arballo (1), C. Galvan (1), R. Sakurai (1), L. D. Zhang (1), D. A. Gurnett (2), J. S. Pickett (2), T. Hada (3), G. S. Lakhina (4) (1) Jet Propulsion Laboratory, California Institute of Technology, Pasadena, CA 91109, (2) University of Iowa, Department of Physics and Astronomy, Iowa City, IA 52242, (3) Kyushu University, Earth System Science & Technology, Kasuga, Fukuoka, Japan, (4) Indian Institute of Geomagnetism, India btsurutani@jplsp.jpl.nasa.gov/Fax (818)354-8895

Electrostatic bipolar pulses (electron holes) and bursty, ~1 msec whistler mode packets are detected by POLAR along auroral zone field lines. The waves are present at all local times (both dayside and nightside) and near POLAR apogee (~7 Re) as well as near perigee (~2 Re). The generation region for the waves, and the responsible particles will be discussed. The interplanetary control will be established using WIND data.

Submitted to ST16 (Solar wind plasma entry in the magnetosphere) Convener: J.-A. Sauvaud